

What is claimed is:

1 1. A nickel electrode for an alkaline storage battery,
2 comprising:

3 a conductive porous member; and

4 an active material with which the conductive porous
5 member is filled, the active material including (a) a main
6 active material layer substantially made of nickel
7 hydroxide, the main active material layer containing cobalt
8 in a state of a solid solution, and (b) a compound layer
9 that contains at least one element selected from the group
10 consisting of calcium, aluminum, strontium, scandium,
11 yttrium, and lanthanoide series, the compound layer being
12 formed on a surface of the main active material layer,

13 wherein a metal molar ratio of cobalt contained in
14 the main active material layer to nickel contained in the
15 main active material layer is in a range of 0.5% to 3.0%
16 inclusive, and

17 a metal molar ratio of the at least one element
18 contained in the compound layer to nickel contained in the
19 active material is in a range of 0.3% to 5.0% inclusive.

1 2. The nickel electrode according to Claim 1,
2 wherein the metal molar ratio of the at least one
3 element selected from the group consisting of calcium,
4 aluminum, strontium, scandium, yttrium, and lanthanoide
5 series is at least 20% in the compound layer formed on the

6 surface of the main active material layer.

1 3. A method of manufacturing a nickel electrode for
2 an alkaline storage battery, comprising:

3 a step for filling a conductive porous substrate with
4 a main active material substantially made of nickel
5 hydroxide, the main active material containing cobalt at
6 a metal molar ratio of 0.5% to 3.0% in a state of a solid
7 solution; and

8 a step for forming a compound layer containing at least
9 one element selected from the group consisting of calcium,
10 aluminum, strontium, scandium, yttrium, and lanthanoide
11 series, on a surface of the main active material.

1 4. A method of manufacturing a nickel electrode for
2 an alkaline storage battery, comprising:

3 a step for forming an active material by forming a
4 compound layer on a surface of a main active material, the
5 main active material being substantially made of nickel
6 hydroxide and containing cobalt at a metal molar ratio of
7 0.5% to 3.0% in a state of a solid solution, the compound
8 layer containing at least one element selected from the
9 group consisting of calcium, aluminum, strontium, scandium,
10 yttrium, and lanthanoide series; and

11 a step for filling a conductive porous substrate with
12 the active material.